What is claimed is:

- 1. A stepping motor in which a stator unit is composed of a pair of stator sub-assemblies integrally attached to each other in a back to back manner, each stator sub-assembly having a plurality of pole teeth formed at its inner circumference and housing a coil inside thereof, and a rotor unit is rotatably disposed with a small gap from the plurality of pole teeth and has multiple magnetic poles formed on a circumference thereof, the multiple magnetic poles of the rotor unit being formed by magnetizing the rotor unit alternately with an S pole and an N pole in a circumferential direction, wherein while a magnetic pole width consisting of a width of the S pole and a width of the N pole in a pair is set to a predetermined constant value, the width of the S pole and the width of the N pole in each pair are set to be different from each other.
- 2. The stepping motor according to claim 1, wherein the width of the S pole and the width of the N pole in each pair are different from each other by an electrical angle ranging from 15 degrees to 50 degrees.
- 25 3. The stepping motor according to claim 1 or 2, wherein one pair of the S pole and the N pole in which the width of the S pole is set to be smaller than the width

of the N pole and another pair of the S pole and the N pole in which the width of the S pole is set to be larger than the width of the N pole are alternately arranged.